

EXCERPTA MEDICA Sec 8 Vol 12/10 Neurology Oct 59

4872. SOME HUMORAL FACTORS OF THE ACTIVITY OF CEREBRAL CENTRES STUDIED BY A NEW METHOD OF PERFUSION OF THE 'ISOLATED HEAD AND BRAIN' - Studiul unor factori umorali ai activității centrilor encefalici cu ajutorul unei metode noi de perfuzie artificială a 'capului și a creierului izolat'. IIa. Despre metabolismul creierului - Benetato G., Vasilescu V., Miulescu V., Grosu L., Stefanescu E. and Bubuiaru E. REV.FIZIOL. 1958, 5/4 (317-329) Graphs 11 Tables 1 Illus. 2

A new method is described for perfusion of the 'isolated head' via the 2 common carotids and of the 'isolated brain' via the common carotids and one vertebral artery, the nervous connections of the brain being maintained in both cases by the spinal cord. Perfusion is effected with heparinized blood free from leucocytes and thrombocytes, diluted with Ringer and oxygenated by a special apparatus. The brain thus perfused maintains normal metabolic activity for 60-90 min., as shown by determination of glucose and oxygen in the outflow and by the persistence of palpebral and pupillary reflexes, pulse, blood pressure and, in particular, of electrical activity (durogram), this diminishing after 90 min. and being slightly activated by noradrenaline. Adrenaline and noradrenaline added to the perfusion fluid diminish the throughput greatly (vasoconstrictor effect) in the isolated head but only very slightly in the isolated brain. Vagal stimulation causes a rise of arterial pressure in the general circulation; it does not influence the adrenaline content of the perfusing blood but greatly increases its noradrenaline content, still more so if reserpine is added to the perfusion fluid. The 'isolated brain' method is suitable for the study of chemical and humoral mechanisms of cerebral activity and also, thanks to the preservation of nervous connections, for the study of cerebral reflexes.

Graur - Bucharest (II, 8)

HATIEGANU, I. [deceased]; FODOR, O.; MAIER, N.; VASILESCU, V.

The allergic microbial component in general neurosis with
vegetative disorders. Romanian M. Rev. 3 no.3:45-48 Jl-S '59.
(NEUROSES, complications)
(AUTONOMIC NERVOUS SYSTEM, diseases)

VASILESCU, V.; VLAD-TROAGA, CONSTANTA; BURGHIU, Gloria

Experimental research on the mechanism of regulating the secretion
of oxytocin. Studii cerc.fiziol. 4 no.3:293-299 '59. (HEAI 9:5)
(OXYTOCIN) (PITUITARY BODY)

"APPROVED FOR RELEASE: 08/31/2001

CIA-RDP86-00513R001858730009-0

VASILESCU,V.; CINCA,I.; DROCAN,J.; OPROIU,Al.; SUTEANU,St.

Data concerning the action of curara on the respiratory centre.
Romanian M. Rev. 4 no.1:7-11 Ja-Mr '60.

(CURARE pharmacol.)

(RESPIRATION pharmacol.)

APPROVED FOR RELEASE: 08/31/2001

CIA-RDP86-00513R001858730009-0"

VASILESCU, V.; COVASNEANU, Zenobia; DUMITRESCU-PAFAHAGI, Elena; FOTINO, S.;
BITTMAN, E.; SUCMANSCHI, Maria; GHIZARI, Eugenia; IONESCU, C.

On some metabolic and hematological reactions of chemical workers to
nitroaromatic substances. Studii cerc fiziol 5 no.1:53-57 '60.

(EEAI 9:12)

1. Institutul de fizicologie normala si patologica "Prof. Dr.
D.Danielopolu al Academiei R.P.R. 2. Redactor responsabil adjunct,
Studii si cercetari de fiziologie (for Vasilescu)
(NITRO GROUP)
(AROMATIC COMPOUNDS)
(BLOOD)
(METABOLISM)
(CHEMICAL WORKERS)

VASILESCU, V.; BITTMAN, E.; FOTINO, S.; IONESCU, C.

Clinical and experimental studies on the action of some nitroaromatic derivatives upon the neuromuscular excitability. Studii cerc fiziol
5 no.1:59-65 '60.
(EEAI 9:12)

1. Institutul de fiziologie normala si patologica "Prof. Dr.
D.Danielopolu" Al Academiei R.P.R.

(NITRO GROUP)
(AROMATIC COMPOUNDS)
(NERVOUS SYSTEM)
(MUSCLES)
(CHLORONITROBENZENE)
(TRINITROTOLUENE)
(NITRONAPHTHALENE)

GROZA, P.; VASILESCU, V.

Ninth All-Union Congress of Physiology, Biochemistry, and
Pharmacology. Studii cerc fiziol 5 no.1:291-294 '60. (EEAI 9:12)
(RUSSIA--PHYSIOLOGY)
(RUSSIA--BIOCHEMISTRY)
(RUSSIA--PHARMACOLOGY)

VASILESCU, V.; TUDORAS, T.

Experimental researches on the influence of physical effort and
conditions of environment upon basal metabolism. Studii cerc fiziol
5 no.2:315-320 '60. (EEAI 10:2)

1. Institutul de fiziologie normala si patologica "Prof. Dr.
D.Danielopolu" al Academiei R.P.R. 2. Comitetul de redactie, Studii
si cercetari de fiziologie, redactor responsabil adjunct (for
Vasilescu)

(MAN) (METABOLISM)

VASILESCU, V.; GABRIELESCU, Elera; BORDEIANU, Aurelia; SUHACIU,
Gh.

Some hypothalamohypophisial modifications in the course
of hepatic regeneration. Studii cerc fiziol 5 no. 4:671-
678 '60.

(1. Liver) (2. Hypothalamus)

1. Institutul de fiziologie normala si patologica "Prof.
Dr. D. Danielopolu" al Academiei R.P.R.
2. Membru a Comitetului de redactie, redactor responsabil
adjunct "Studii si cercetari de fiziologie" (for Vasilescu).

VASILESCU, V.; GABRIELESCU, Elena; BORDEIANU, Aurelia; SUHACIU, G.

A study of certain hypothalmo-hypophyseal changes in the course of hepatic regeneration. Rumanian M Rev. no.1:276 Ja-Mr '61.

1. The "Prof. Dr. D. Danielopolu" Institute of Normal and Pathological Physiology, Academy of the R.P.R., Director: Acad. Gr. Bonetato.
(HYPOTHALAMUS pathology) (PITUITARY GLAND, ANTERIOR pathology)
(LIVER surgery)

SPIRCHEZ, T.; GHEORGHESCU, B.; BRASLA, I.; MERCULIEV, El.; VASILESCU, V. V.

Considerations on the study of protein metabolism in chronic hepatitis with iodated (I-131) human serum albumin. Stud. cercet. med. intern. 2 no.5:663-670 '61.

(HEPATITIS metabolism) (PROTEINS metabolism)
(LIVER metabolism) (IODINE radioactive)

VASILESCU, V.; COVASNEANU, Zenobia

A study on the incorporation of P^{32} with the ribonucleic acid of the brain, liver, and muscles in rats under the influence of trinitrotoluene (TNT). Studii cerc fiziol 6 no.2:221-228 '61.

1. Institutul de fiziologie normala si patologica "Prof. Dr. D. Danielopolu" al Academiei R.P.R. 2. Redactor responsabil adjunct, "Studii si cercetari de fiziologie" (for Vasilescu).

(RADIOACTIVE SUBSTANCES) (PHOSPHORUS)
(RIBONUCLEIC ACIDS) (TRINITROTOLUENE) (BRAIN)
(LIVER) (MUSCLES)

VASILESCU, V.; NICULESCU, V.; CAPILNA, S.; BORDEIANU, Aurelia; GHIZARI, Eugenia

Experimental investigations on the biochemical composition and biological effects of some liver extracts. Studii cerc fiziol 6 no.2:229-235 '61.

1. Institutul de fiziologie normala si patologica "Prof. Dr. D. Danielopolu" al Academiei R.P.R. 2. Redactor responsabil adjunct, "Studii si cercetari de fiziologie" (for Vasilescu).

(LIVER) (METABOLISM)

VASILESCU, V.; GABRIELESCU, Elena; BORDEIANU, Aurelia; SUHACIU, G.

A study of certain hypothalmo-hypophyseal changes in the course of hepatic regeneration. Rumanian M Rev. no.1:276 Ja-Mr '61.

1. The "Prof. Dr. D. Danielopolu" Institute of Normal and Pathological Physiology, Academy of the R.P.R., Director: Acad. Gr. Benetato.
(HYPOTHALAMUS pathology) (PITUITARY GLAND, ANTERIOR pathology)
(LIVER surgery)

TURCU, Gr.; DIMOFTACHE, C.; WEXLER, P.; VASILESCU, V.

Cytochemical and cytospectrophotometric study on white rats
irradiated internally with ^{32}P . Studii cerc biochimie 7 no.1:
109-115 '64.

1. Department of Biophysics, Institute of Medicine and
Pharmacy, Bucharest.

PREDESCU, L.; CRUIA, M.; CIOBANESCU, M.; Asist. tehn.: VASILESCU, V.

Research on the seasonal circulation of enteric viruses
in children from 8 months to 2 years of age. Stud. cercet.
inframicrobiol. 15 no.3:293-298 '64.

VASILESCU, V.

ROMANIA

VASILESCU, V., Lecturer; TOADER, Viorica, MD.

Laboratory of Biophysics of the Institute of Medicine and
Pharmacy (Laboratorul de Biophysica, I.M.F.), Bucharest,
- (for all)

Bucharest, Viata Medicala, No 3, 1 Feb 63, pp 145-154

"New Data Regarding the Mechanism of Hepatic Regeneration."

(2)

VASILESCU, V.

BENESTATO, Gr.; OPRISIU, C.; BACIU, I.; VASILESCU, V.

Antagonistic effect of adrenalin and chlorpromazine on the vasomotor centers. Bul. stiint., sect. med. 9 no.1:7-18 1957.

(BRAIN, eff. of drugs on epinephrine & chlorpromazine, on vasomotor centers of isolated dog brain, mechanism of action)

(EPINEPHRINE, effects on vasomotor centers of isolated dog brain, mechanism of action, with chlorpromazine)

(CHLORPROMAZINE, effects on vasomotor centers of isolated dog brain, with epinephrine, mechanism of action)

RUMANIA/Pharmacology - Toxicology - Tranquillizers.

v

Abs Jour : Ref Zhur Biol., No 4, 1959, 18535

Author : Nana, A., Vasilescu, V., Toader, C.
Inst : -

Title : An Experimental Study of the Effect of Largactyl
Prescribed at a Time of Shock.

Orig Pub : Fiziol. norm. si. patol., 1958, 5, No 3, 207-213

Abstract : Shock was induced in rats by means of placing a tourniquet;
in rabbits, by means of bloodletting. The dependence of
the effect of largactyl on the stage of shock is noted.
The preparation prevents well the development of shock,
but during the period of decompensation it worsens the
condition of the animals. -- From the author's resume

Card 1/1

- 13 -

RUMANIA/Human and Animal Physiology - Internal Secretion.

V-7

Abs Jour : Ref Zhur - Biol., No 2, 1958, 8843

Author : Gr. Benetato, I. Baciu, C. Oprisiu, V. Vasilescu and R. Budai

Inst :

Title : The Central Action of Several Hormones. Experimental Studies Using the "Isolated Head" Technique. II. The Central Action of Epinephrine.

Orig Pub : Bul. stiint. Acad. R.P.Romine Sec. med., 1954, 6, No 4,
735-749

Abstract : No abstract.

Card 1/1

VASILESCU, V.

Continuous esterification with ion exchange resins as catalysts. Virgilin Vasilescu (VERB Deut. Hydrierwerk, Rodleben, E. Ger.), "Chem.-Tech. (Berlin) 11, 29-31 (1959).
Mixts. of low mol. wt. carboxylic acids from C₁ to C₆ (25%), and water (75%) which are obtained as side products in paraffin oxidation are continuously esterified using a naphthalene-disulfonic acid type resin (Wofatit D). Preliminary tests with an anhydrous C₁-C₆ fatty acid-butanol mixt. showed applicability for aq. mixts. Five columns each contg. 8 l. of Wofatit were used. In the first three columns the aq. mixt. was treated with butanol (I), and the oily ester sepd. In the last two columns the aq. layer was treated with C₁-C₆ fatty alcs., or methylecyclohexanol, insol. in H₂O. The temp. was 98-100°. The flow rate was 4 l. of aq. mixt. (acid No. 240) and 2 l. of I per hr. The acid no. after the last step was 25. B. Reitzner

917

VASILESCU-KARPEN, N.

VASILESCU-KARPEN, N. Observation on the preliminary proposals for the standard
"Electric and Magnetic Measurement." p. 2.

Vol. 7, no. 12, Dec. 1955
STANDARDIZAREA
Bucuresti, Rumania

So: Eastern European Accession Vol. 5 No. 4 April 1956

"APPROVED FOR RELEASE: 08/31/2001

CIA-RDP86-00513R001858730009-0

VASILESCU MARIN, N.

Electric cell with hydrogen. p. 29. ACADEMIA REPUBLICII
POPULARE ROMANE Romania Vol. 6, No. 1, Jan 1950

East European Accessions List (EEAL) Library of Congress
Vol. 5, No. 11, August 1956.

APPROVED FOR RELEASE: 08/31/2001

CIA-RDP86-00513R001858730009-0"

VASILESCU KARPEN, N.

Electromotive force or electromotive tension? Analysis of phenomena in a wire induced in a dynamo. p. 413. Academia Republicii Populare Romane. COMUNICARILE. Bucuresti. Vol. 6, no. 3, Mar. 1956.

SOURCE: East European Accessions List (EEAL) Library of Congress,
Vol. 5, no. 9, Sept. 1955

semipermeable membrane. Instead, the pressure exerted

is turned by the flow of water through the semipermeable membrane.

VASILESCU KARPEA, N.

An experimental verification of the dissociation of hydrogen dissolved in protons and electrons. p. 765.

COMUNICARILE. Bucuresti, Romania, Vol. 8, no. 8, Aug. 1958.

Monthly List of European Accessions (EEAI) LC, Vol. 8, no. 8, Aug. 1959.

Uncl.

"APPROVED FOR RELEASE: 08/31/2001

CIA-RDP86-00513R001858730009-0

VASTILESCU-KARPEN, N., acad.

Origin of terrestrial magnetism. Studii cerc fiz 14 no.3:289-
304 '63.

APPROVED FOR RELEASE: 08/31/2001

CIA-RDP86-00513R001858730009-0"

"APPROVED FOR RELEASE: 08/31/2001

CIA-RDP86-00513R001858730009-0

VINTU, A., dr.; VASILESCU-NAN, F.; TACORIAN, S., dr.

Contribution to the study of the changes in distribution of serum
amino acids in chronic hepatitis. Med. intern. 14 no.6:741-749 Je '62.
(AMINO ACIDS) (BLOOD CHEMICAL ANALYSIS)
(CHROMATOGRAPHY) (HEPATITIS)

APPROVED FOR RELEASE: 08/31/2001

CIA-RDP86-00513R001858730009-0"

SOW/112-58-1-150

Translation from: Referativnyy zhurnal, Elektrotehnika, 1958, Nr 1, p 17 (USSR)

AUTHOR: Safir, I., Pimsner, V., and Vasileaku, A. K.

TITLE: Possibility of Obtaining Energy from Natural-Gas Fields
(Vozmozhnost' polucheniya energii na razrabotkakh prirodnnykh gazov)

PERIODICAL: Zh. tekhn. Nauk Akad. RNR, 1954, Nr 3, pp 19-59

ABSTRACT: Using methane as an example, the feasibility of using natural-gas energy is considered. The relative simplicity of gas plants is noted. It is pointed out that the jet compressor used in the methane-production industry would help: in long-distance transmission of gas from the fields where the pressure is lower than that necessary for transmission; in better utilization of high-pressure gas fields and in prolonging the service life of drill-holes; in simultaneous exploitation of both lower and higher levels; in increasing gas-field capacity by utilization of gas from low-pressure drill-holes. An arrangement with a methane-gas turbine permits anticipating electric-energy production with little expense and minimum investment. A complex arrangement of a

Card 1/2

SOV/ 112-58-1-150

Possibility of Obtaining Energy from Natural-Gas Fields

gas-jet compressor and a gas turbine has a higher efficiency when a heat exchanger is used. The latter secures full use of waste heat; lowers costs since the turbine is installed only at a single drill-hole or group of drill-holes; raises turbine efficiency and permits turbine operation within a wider range of pressures and temperatures. The complex outfit makes rational exploitation of natural-gas fields possible, by connecting the drill-holes to the supply networks of turbine and jet compressor. A combined installation is considered, consisting of a gas turbine (in combination with a refrigerating outfit) that expands down to temperatures much lower than ambient. Preliminary heating of methane (before the turbine) that permits obtaining greater specific capacities at lower efficiency is also considered. The above schemes are accompanied by diagrams for evaluating the advantages corresponding to various practical cases of operation. An is-diagram for methane graphed by the authors helps to investigate other possible schemes of using natural-gas power resources in Rumania.

M. N. N.

AVAILABLE: Library of Congress

Card 2/2 1. Natural gas--Energy 2. Natural gas--Applications 3. Compressors
 --Performance 4. Gas turbines--Performance

VASILESKU, L. S.

Dissertation: "The Reaction of Iron Sulfate Solutions With Sulfur Dioxide and Oxygen." Cand Tech Sci, Leningrad Technological Inst, Leningrad, 1953. Referativnyy Zhurnal--Khimiya, Moscow, No 14, Jul 54.

SO: SUM No. 356, 25 Jan 1955

"APPROVED FOR RELEASE: 08/31/2001

CIA-RDP86-00513R001858730009-0

APPROVED FOR RELEASE: 08/31/2001

CIA-RDP86-00513R001858730009-0"

VASILESKUL, S.

USSR/Chemical Technology - Chemical Products and Their Application. Mineral Salts. Oxides. Acids. Bases, I-5

Abst Journal: Referat Zhur - Khimiya, No 19, 1956, 62087

Author: Pozin, M. Ye. Mukhnenov, I. P., Vasilesku, L. S.

Institution: None

Title: On Reduction of Ferric Sulfate with Sulfur Dioxide

Original

Periodical: Zh. prikl. khimii, 1955, 28, No 6, 573-578

Abstract: Study of the effects of technological conditions (temperature and concentration of SO₂ and O₂ in gaseous mixture) on rate of reaction of reduction of Fe₂(SO₄)₃ to FeSO₄ in the process of production of H₂SO₄ by means of a Fe-catalyst from impure waste gases. Gaseous mixture fed at a rate of 30 l/hour through glass filter into reaction vessel containing 150 ml of Fe₂(SO₄)₃ solution (Fe ~ 30 g/l), contained in a thermocstat at 20-80°, with a ratio SO₂:O₂ = 1:0.4 (concentration SO₂ 7%). During first period (~1.5 hour) when in solution the amount of Fe³⁺ is still large rate of reaction of Fe³⁺

Card 1/3

USSR/Chemical Technology - Chemical Products and Their Application. Mineral Salts. Oxides. Acids. Bases, I-5

Abst Journal: Referat Zhur - Khimiya, No 19, 1956, 62087

Abstract: reduction predominated rate of Fe^{2+} oxidation. During second period the reversed conditions took place which was due to accumulation of Fe^{2+} , and also decrease in SO_2 solubility and lowering of dissociation degree of $\text{Fe}_2(\text{SO}_4)_3$ due to H_2SO_4 formation As Fe^{3+} accumulated rate of oxidation decreased. Increase in temperature accelerated accumulation of H_2SO_4 but extent of maximum reduction of Fe^{3+} decreased with rise in temperature from 20 to 60° (solubility of SO_2 decreased more rapidly than solubility of O_2). On rise of temperature to 80° extent of reduction of Fe^{3+} increased again. Rate of acid formation which increases rapidly at the beginning of first period, and decreases at its end, remained constant during second period up to a considerable accumulation of H_2SO_4 after which it dropped again, especially at 60-80°. With increase in H_2SO_4 concentration optimal temperature of the process decreases. Experiments with SO_2 concentrations of 7-100% (at 60°) also showed at first a decrease in Fe^{3+} content of the solution with subsequent predominance of oxidation reaction. Only in the absence of O_2 (100% SO_2) no second period occurred. Increase in SO_2 concentration from 20 to

Card 2/3

USSR/Chemical Technology - Chemical Products and Their Application. Mineral Salts. Oxides. Acids. Bases, I-5

Abst Journal: Referat Zhur - Khimiya, No 19, 1956, 62087

Abstract: 100% increased at the beginning of the process the rate of acid formation and apparently decreased the maximum attainable concentration of acid in solution. Maximum concentration was obtained with 20% SO₂ in gas mixture. In all experiments degree of Fe³⁺ reduction was not less than 20%. Change in SO₂:O₂ ratio from 1:0.4 to 1:4 at 60° and 7% concentration of SO₂ has shown that degree of Fe³⁺ reduction decreases with increase in O₂ concentration while rate of summative process of acid formation increases (by 3 times). An H₂SO₄ concentration of 20.6% was attained which is not a maximal. The investigation has confirmed the possibility of concurrent utilization of waste gases and waste pickling solutions or the production of H₂SO₄ (after crystallization of Fe₂(SO₄)₃ from the solution).

Card 3/3

Subject : USSR/Chemistry AID P - 3565
Card 1/1 Pub. 152 - 2/20
Authors : Pozin, M. Ye., I. P. Mukhlenov, and L. S. Vasilesku
Title : Oxidation of sulfur dioxide in a ferrous sulfate solution
Periodical : Zhur. prikl. khim., 28, 7, 681-686, 1955
Abstract : Sulfur dioxide reacts with a ferrous sulfate solution forming ferric sulfate and sulfuric acid. Optimum temperature for the oxidation of ferrous sulfate to ferric sulfate is 60-80°C, and for the formation of sulfuric acid, 80-90°C. Six diagrams, 7 references, 5 Russian (1931-1955).
Institution : Leningrad Technological Institute im. Lensoviet
Submitted : My 10, 1954

POP, Al; DIMITRIU, O; VASILESKU, T.(Bukharest)

Recent studies of human brucellosis in the Rumanian People's
Republic. Zhur.mikrobiol.epid. i immun. no.7:78-79 J1 '55.
(BRUCELLOSIS, epidemiology (MLRA 8:9)
in Rumania)

VASILETS, P., polkovnik.

Indoctrination during driving lessons. Tankist no.1:9-12 Ja '58.
(Tanks (Military science)) (MIRA 11:3)

"APPROVED FOR RELEASE: 08/31/2001

CIA-RDP86-00513R001858730009-0

OVECHKIS, Ye.S.; VASILETS, T.A.; ROKHLENKO, R.M.

Methodology for determining the tensile strength of leather
raw materials. Kozh.-obuv. prom. 6 no.2:24-27 F'64.
(MIRA 17:5)

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CIA-RDP86-00513R001858730009-0"

"APPROVED FOR RELEASE: 08/31/2001

CIA-RDP86-00513R001858730009-0

VASILETS, Ya. E. Lecturer; GOLUSHKO, V. G., Veterinarian
"On the problem of the cold method of raising calves"
SO: Veterinarija 28(1), 1951, p. 32

APPROVED FOR RELEASE: 08/31/2001

CIA-RDP86-00513R001858730009-0"

ALEKSANDROV, B.I.; MISHIN, P.A.; FUNSSTEYN, Ya.N.; DROZD, S.N.;
VASILEIS, F.P.

Effect of surface hardening on the strength of the rear semiaxle
casing of motor vehicles. Sbor.trud.Inst.mash.i avtom.AN BSSR
no.2:29-45 '61. (MIRA 15:3)
(Case hardening) (Motor vehicles--Axles--Testing)

ALEKSANDROV, B.I.; MISHIN, P.A.; DROZD, S.N.; VASILETS, F.P.

Effect of the surface hardening on the wear resistance of the case
of the rear axle shaft. Avt.prom. no.2:35-36 F '61. (MIRA 14:3)

1. Institut mashinovedeniya AN BSSR i Minskij avtozavod.
(Automobiles--Axles)

S/123/62/G00/020/005/007
A006/A101

AUTHOR: Vasilets, F. P.

TITLE: Investigating the effect of some strengthening methods upon the relaxation resistance of helical cylindrical springs

PERIODICAL: Referativnyy zhurnal, Mashinostroyeniye, no. 20, 1962, 29 - 30,
abstract 20B182 ("Sb. tr. In-t mashinoved. i avtomatiz. AN BSSR",
1961, no. 2, 81 - 92)

TEXT: Investigations were made with Д 81-1 (D81-1) springs of 6 x 32 x 220 size, manufactured of 65 Г (65G) steel containing in %: C 0.63; Mg 0.7; Si 0.3; Ni 0.2; Cr 0.05. After heat treatment (oil quenching at 790 - 810°C with subsequent tempering at 360 - 400°C for 30 min) the springs had a troostite-sorbite microstructure and RC 46. Two test series were performed. In the first series the springs were placed on bolts and compressed by nuts (to heights corresponding to 150 kg load) during 1,000 hours. Preliminary strengthening treatment consisted in 3- and 30-fold compression until contact of the turns; constraint for 6, 24 and 48 hours, shot treatment with subsequent tempering at 250°C

Card 1/2

3/123/62/000/020/005/007

A006/A101

Investigating the effect of...

for 30 min; shot treatment and constraint for 24 hours. A graph is plotted showing the relaxation strength of the spring versus the mode of additional strengthening treatment. In the second test series, the setting of the springs was measured after 1,000-hour loading until the contact of the turns without intermediate unloading. This series consisted also of four spring groups, 3 springs each, without additional strengthening; 30-fold compression until contact of the turns, constraint for 24 hours; shot-blast treatment and constraint for 24 hours. The investigation shows that 24-hour constraint is the most effective means for raising the relaxation strength of springs. There are 7 figures.

T. Kislyakova

[Abstracter's note: Complete translation]

Card 2/2

"APPROVED FOR RELEASE: 08/31/2001

CIA-RDP86-00513R001858730009-0

ALEKSANDROV, B.J., kand.tekhn.nauk; VASILETS, F.P., kand.tekhn.nauk.

Effect of the technology of production and the assymetry of loading
cycle on the cyclic strength and durability of bolted joints.
Vest. mashinostr. 44 no. 4 33-36 Ap '64. (MIRA 17:5)

APPROVED FOR RELEASE: 08/31/2001

CIA-RDP86-00513R001858730009-0"

NEYFAKH, S.A.; VASILETS, I.M.

Actomyosin-like protein in the external membrane of liver cells.
Vop.med.khim. 10 no.3:326-328 My-Je '64. (MIRA 18:2)
1. Laboratoriya biokhimicheskoy genetiki Instituta eksperimental'noy
meditsiny AMN SSSR, Leningrad.

VASILETS, I.M.

Relationship between the cell membrane permeability to
glycolytic enzymes and oxidative phosphorylation in
liver cells. Biokhimia 29 no.5:983-991 Jl-Ag '64.
(MIRA 18:11)

1. Laboratoriya biokhimicheskoy genetiki Instituta
eksperimental'noy meditsiny AMN SSSR, Leningrad.

NEIFAKH, S. A. & VASIL'EV, I. M.

Mechanism of the blocking of enzymes through the outer membrane of tumor cells. Tsitologiya 7 no. 3:347-355 May-June 1965.
(MTRB 18810)

1. Laboratoriya biokhimicheskoy genetiki Instituta eksperimental'noy meditsiny AMN SSSR, Leningrad.

GOLUBEV, D.B.; CHEBOTAREV, Ye.N.; VASILETS, I.M.; AKSENOV, O.A.;
ZVEREVA, Ye.P.

Changes in the membrane permeability of tissue culture cells
during the reproduction of viruses. *TSitologiya* 7 no.3:356-365
(MIRA 18:10)
My-Je '65.

1. Laboratoriya virusnykh preparatov Instituta vitsin i
syvorotok i laboratoriya biokhimicheskoy genetiki Instituta
eksperimental'noy meditsiny AMN SSSR, Leningrad.

VIL'NITSKIY, Moisey Borisovich [Vil'nyts'kyi, M.B.], kand. filos. nauk;
VASILETS', I.P. [Vasylets', I.P.], red.; MATVIICHUK, O.A.,
tekhn. red.

[Lenin on space and time and the theory of relativity] Lenin pro
prostir i chas ta teoriia vidnosnosti. Kyiv, 1961. 48 p. (To-
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(Relativity (Physics))

"APPROVED FOR RELEASE: 08/31/2001

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"APPROVED FOR RELEASE: 08/31/2001

CIA-RDP86-00513R001858730009-0

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2.4220

77190
SOV/109-5-1-3/20

AUTHOR: Mikaelyan, A. L., Smolyarov, A. K., Vasil'ev, A. A.

TITLE: Investigation of the Spectrum of Natural Oscillations
of a Resonator With a Magnetized Ferrite

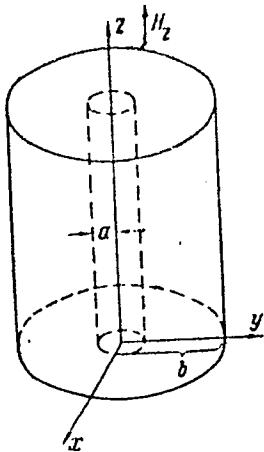
PERIODICAL: Radiotekhnika i elektronika, 1960, Vol 5, Nr 1, pp 27-
38 (USSR)

ABSTRACT: In the study an exact solution is given of the problem
of natural frequencies for a cylindrical resonator con-
taining a longitudinally magnetized ferrite cylinder of
an arbitrary radius. A similar problem is discussed
for the case when the resonator has no side walls. It
is shown that for the cylinder of infinitely small
radius the results obtained in this study coincide with
the corresponding results obtained by Walker who used
quasi-static approximations. The system under dis-
cussion represents a cylindrical resonator of a
circular cross section with a longitudinally magnetized
ferrite rod (Fig. 1).

Card 1/21

Investigation of the Spectrum of Natural
Oscillations of a Resonator With a
Magnetized Ferrite

77190
Sov/109-5-1-3/20



Card 2/21

Fig. 1. System of resonator with ferrite.

Investigation of the Spectrum of Natural
Oscillations of a Resonator With a
Magnetized Ferrite

77190
SOV/109-5-1-3/20

It will be assumed that in the resonator only simple
wave of $TM_{q,n,o}$ -type exist, independent of z . In this
case the field inside the resonator satisfies the
following set of Maxwell equations:

$$\begin{aligned}\text{rot } \vec{E} &= -\frac{\partial \vec{H}}{\partial t}, \\ \text{rot } \vec{H} &= \frac{\partial \vec{E}}{\partial t}.\end{aligned}\tag{1}$$

Introducing the cylindrical coordinate system r , φ ,
 z the solution of Eq. (1) must be obtained within the
ferrite medium which is defined by parameters ϵ and
 $\|\mu\|$. Using Bessel functions, this solution is
found in the form:

Card 3/21

Investigation of the Spectrum of Natural
 Oscillations of a Resonator With a
 Magnetized Ferrite

77190
 50V/109-5-1-3/20

$$E_z = AJ_n(k_\perp r) e^{\pm i\omega z},$$

$$H_r = \frac{A}{\omega \mu_\perp} \left[\pm \frac{n}{r} J_n(k_\perp r) + \frac{k}{\mu} k_\perp J'_n(k_\perp r) \right] e^{\pm i\omega z}, \quad (2)$$

$$H_\varphi = \frac{A}{\mu \omega \mu_\perp} \left[\pm \frac{nk}{r\mu} J_n(k_\perp r) + k_\perp J'_n(k_\perp r) \right] e^{\pm i\omega z}.$$

Here the following notations are introduced:

$$k_\perp = (\omega^2 \epsilon \mu_\perp)^{1/2}, \quad \mu_\perp = \frac{\mu^2 - k^2}{\mu},$$

where ϵ is a dielectric permeability of ferrite; μ , k are tensor components of the magnetic permeability of ferrite. This tensor is given in the form:

Card 4/21

Investigation of the Spectrum of Natural
Oscillations of a Resonator With a
Magnetized Ferrite

77190
SOV/109-5-1-3/20

$$\begin{bmatrix} \mu & -ik & 0 \\ ik & \mu & 0 \\ 0 & 0 & \mu_z \end{bmatrix}. \quad (3)$$

Taking into account the frequency ω , the constant magnetic field H_0 , and the magnetization M_z , and using for E_z the linear combination of Bessel and Neyman functions, the following resultant equation is obtained:

$$ak_1 \frac{\mu_0}{\mu_1} \frac{J'_n(ak_1)}{J_n(ak_1)} \pm n \frac{k}{\mu} \frac{\mu_0}{\mu_1} = ak_0 \frac{C'_n(ak_0)}{C_n(ak_0)}, \quad (8)$$

where a is a radius of the ferrite cylinder. Minus and plus signs correspond to the multipliers $e^{+jn\phi}$ and $e^{-jn\phi}$, respectively. This determines the waves with counterclockwise and clockwise vector rotation,

Card 5/21

Investigation of the Spectrum of Natural
Oscillations of a Resonator With a
Magnetized Ferrite

77190
SOV/109-5-1-3/20

respectively. To find a set of solutions for $\omega = \omega_k$ satisfying Eq. (8), a , b , M_z , and ϵ must be assumed to be constant and H_0 has to be a parameter. Here a and b are given on Fig. 1; M_z is the saturation magnetization and ϵ is the dielectric constant. The solutions obtained in this manner determine the natural frequencies of the system. Using recursion expressions for Bessel functions, Eq. (8) is transformed into a form more convenient for numerical operations, as follows:

$$ak_1 \frac{\mu_0}{\mu_\perp} \frac{J'_n(ak_\perp)}{J_n(ak_\perp)} + n \frac{k}{\mu} \frac{\mu_0}{\mu_\perp} = -n + ak_0 \frac{J_{n-1}(ak_0)}{J_n(ak_0)} + \\ + \frac{2J_n(k_0 b)}{\pi J_n(ak_0) [J_n(bk_0) N_n(ak_0) - J_n(ak_0) N_n(bk_0)]}. \quad (9)$$

Card 6/21

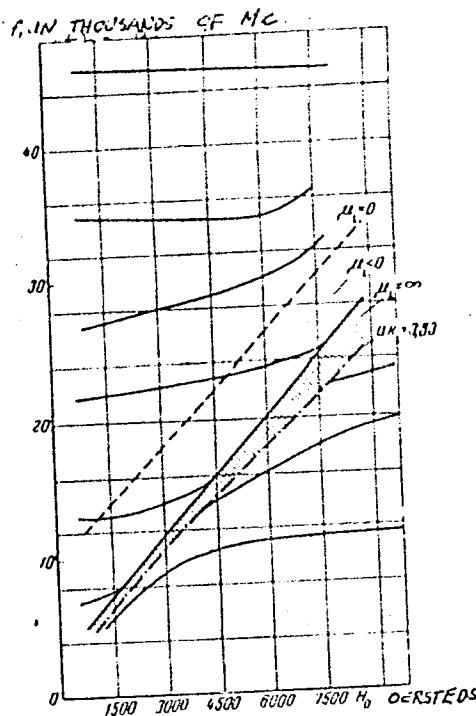
Investigation of the Spectrum of Natural
Oscillations of a Resonator With a
Magnetized Ferrite

77190
SOV/109-5-1-3/20

The numerical results are obtained for a resonator and ferrite parameters: $a = 1.5$ mm, $b = 15$ mm, $4\pi M = 3,600$ c/s, $\epsilon = 10 \epsilon_0$. Equation (9) has been solved for various values of the constant magnetic field H_0 . Figures 2 and 3 show the plots of natural frequency as a function of H_0 . They correspond to clockwise and counterclockwise rotating field structures, respectively. In this case the Bessel function index equals 1. In the curves the straight line denoted by $\mu_1 = \infty$ characterizes the transverse ferromagnetic resonance in the ferrite of infinite dimensions. The space between the lines $\mu_1 = 0$ and $\mu_1 = \infty$ corresponds to negative values of μ_1 . Below the line $\mu_1 = \infty$ are numerous natural-type oscillations of ferrite. This region is shaded on Fig. 2 and 3. There are other physical interpretations of curves given. Spectrum in ferrite has a limited amount of natural

Card 7/21

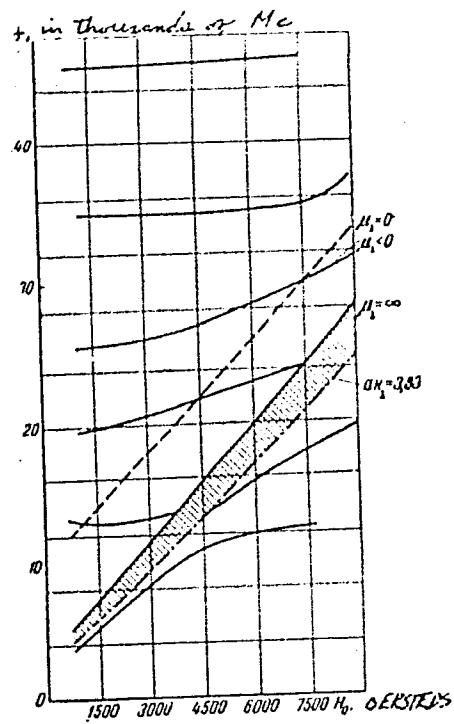
Card 8/21



77190
SOV/109-5-1-3/20

Fig. 2. Spectrum of natural oscillations of system with clockwise rotation ($n = 1$).

Card 9/21



77190
SOV/109-5-1-3/20

Fig. 3. Spectrum of system with counter-clockwise rotation ($n = 1$).

Investigation of the Spectrum of Natural
Oscillations of a Resonator With a
Magnetized Ferrite

77190
SOV/109-5-1-3/20

oscillations when losses in the sample are taken into account, and they will interact with the natural oscillations of the empty resonator. Fig. 5 shows the reciprocal interaction of four ferrite oscillations with two natural oscillations of the resonator. Fig. 6 shows the solution of Eq. (9) for $n = 0$. This case corresponds to quasi-TM_{q,o,o}-type of oscillations, where q is the root number of function $J_0(k_0 b) = 0$. Spectrum of natural oscillations is discussed under the assumption that the resonator surface has been removed, and that the end planes are infinitely extended. In a similar manner, the characteristic Eq. (14) is obtained:

$$ak_1 \frac{\mu_0}{\mu_1} \frac{J'_n(ak_1)}{J_n(ak_1)} \pm n \frac{k}{\mu} \frac{\mu_0}{\mu_1} = ak_0 \frac{K'_n(k_0 a)}{K_n(k_0 a)} . \quad (14)$$

Card 10/21

Investigation of the Spectrum of Natural
Oscillations of a Resonator With a
Magnetized Ferrite

77190
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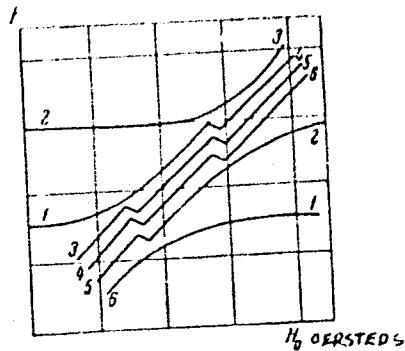
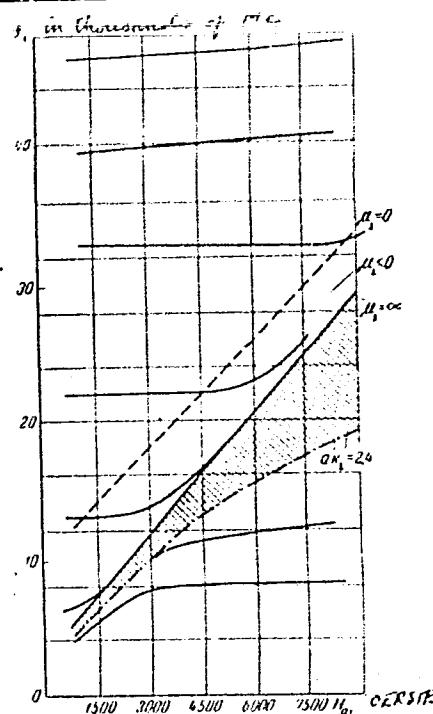


Fig. 5 Spasmodic retuning of nonhomogeneous oscillations of ferritic types: (1) first type resonance; (2) second type resonance; (3,4,5,6) ferritic.

Card 11/21



77190, SOV/109-5-1-3/20

Card 12/21

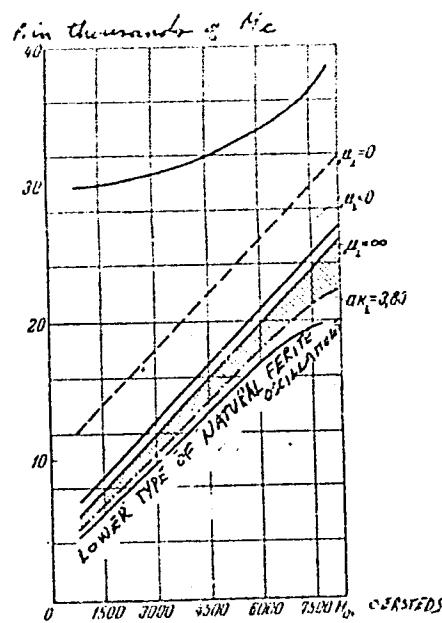
Fig. 6. Spectrum of system at $n = 0$.

Investigation of the Spectrum of Natural
Oscillations of a Resonator With a
Magnetized Ferrite

77100
SOV/109-5-1-3/20

A graphical method has been used to solve it. The results are plotted on Figs. 7, 8, and 9. Figure 10 shows the nature of lower oscillations in ferrite for the system without walls with clockwise rotation ($n = 1$). Figure 11 shows the nature of lower oscillations in ferrite for the system without walls with counterclockwise rotation ($u = 1$). It is shown that results obtained in the study are similar to those obtained by Walker. Two more cases are discussed. In the first case, the spectrum of natural oscillations in the ferrite is obtained when resonance-type oscillations are absent in the system and when the radius of the ferrite sample increases. In the second case, a resonator with walls is taken, and oscillations in the ferrite sample of small radius are investigated. Figure 15 shows the lower type of oscillations in the system for various dimensions of resonator. In the summary it is stated that in the system under discussion an interaction takes place between the various types of oscillations. For example, the resonator oscillations

Card 13/21



77190, SOV/109-5-1-3/20

Investigation of the Spectrum of Natural
Oscillations of a Resonator With a
Magnetized Ferrite

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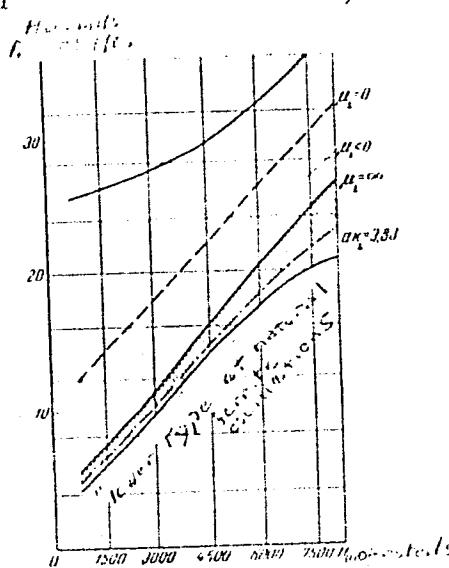
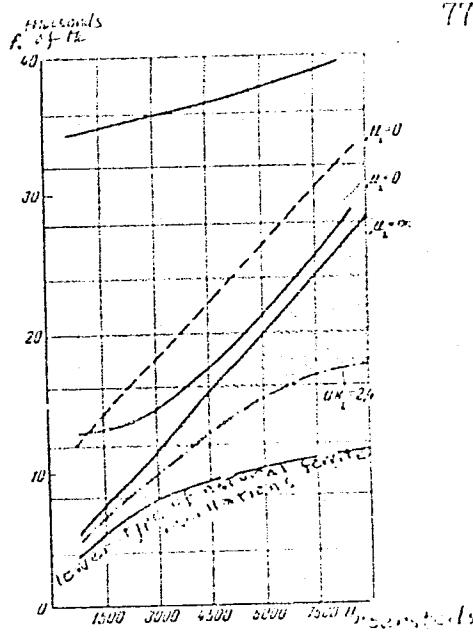


Fig. 8. Spectrum of system without walls with counter-clockwise rotation ($n = 1$).
Card 15/21

77190, Sov/109-5-1-3/10



Card 16/21

Fig. 9. Spectrum of system without walls ($n = 0$).

Investigation of the Spectrum of Natural
Oscillations of a Resonator With a
Magnetized Ferrite

77190
SOV/109-5-1-3/20

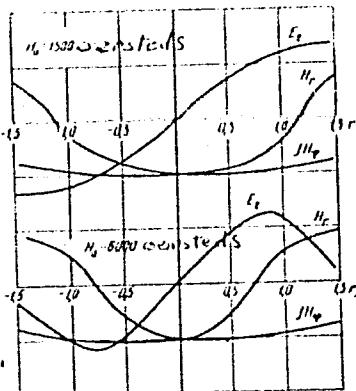


Fig. 10. Nature of lower oscillations in ferrite for a
system without walls with clockwise rotation.

Card 17/21

Investigation of the Spectrum of Natural
Oscillations of a Resonator With a
Magnetized Ferrite

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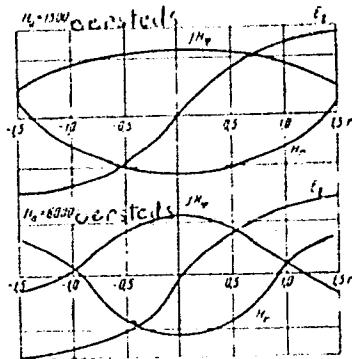


Fig. 11. Nature of lower oscillations in ferrite for a
system without walls with counterclockwise rotation
($n = 1$).

Card 18/21

Investigation of the Spectrum of Natural
Oscillations of a Resonator With a
Magnetized Ferrite

77190
SOV/109-5-1-3/20

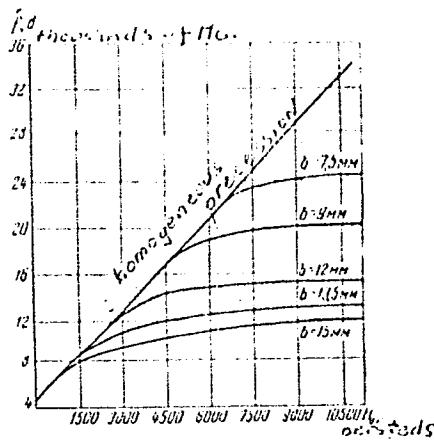


Fig. 15. Lower type of oscillations in system for
various dimensions of resonator ($n = 1$, clockwise
rotation, $a = 0.5$ mm).

Card 19/21

Investigation of the Spectrum of Natural
Oscillations of a Resonator With a
Magnetized Ferrite

77190
SOV/109-5-1-3/20

may be mutually connected in the presence of ferrite. The interaction between ferrite oscillations is quite similar to the phenomena in coupled oscillatory systems. These phenomena are very important, but they can not be investigated using the quasi-static approximation. The natural frequencies of the system discussed, and particularly the resonance frequency of homogeneous precession, depend on the ferrite dimensions, ferrite dielectric permeability, and on the radius of the resonator. The analysis made makes possible investigation of the problem of the width of the absorption line of natural oscillations in a resonator with a cylindrical ferrite, accounting for the losses. The width of the homogeneous precession line depends not only on magnetic losses, as is taken in quasi-statical approximations, but also on dielectric losses, and on the ferrite and the resonator dimensions. Assistance of Yu. G. Turkov is acknowledged.. There are 15 figures; and 5 references, 2 Soviet, 3 U.S. The U.S. references

Card 20/21

Investigation of the Spectrum of Natural
Oscillations of a Resonator With a
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SUBMITTED: July 17, 1959

Card 21/21

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77830
SOV/105-21-2-10/14

AUTHORS: Vasilev, A. G., Zhitomirskiy, I. S., Klempner, K. S.
(Kharkov)

TITLE: Reliability Criteria of Automatic Relay Arrangements
With Radioactive Emitters

PERIODICAL: Avtomatika i telemekhanika, 1960, Vol 21, Nr 2,
pp 245-253 (USSR)

ABSTRACT: The study determines the probabilities that the relay
will maintain a given state, and an average number of
"false" operations at a unit time as function of the
system parameters. On the basis of previously published
papers, the authors refer to the characteristic
function of distribution of the random magnitude and
the cumulatives of distribution. Applying these equations
to devices in which the RC cell serves as an integrator,
in order to determine the density of probability and
the function of distribution, leads to very difficult
calculations. Two expansions in a series for the
density of probability $p(x)$ and for the function of

Card 1/3

Reliability Criteria of Automatic Relay
Arrangements With Radioactive Emitters

77830
SOV/103-21-2-10/14

distribution $F(x)$, both to be determined, are considered. The first and second expansion in a series, respectively, may be used for greater and smaller magnitudes of ν where

$$\nu = nRC, \quad (5)$$

Here, n is the speed of calculation and RC is a resistance capacitance cell. Assuming that speed of calculation is constant and that the time when the system is in a steady-state condition is sufficiently long, the investigation of reliability of the system is reduced to an investigation of reliability of the stationary state. Thus, the following equations for density of probability $p(x)$ and for function of distribution $F(x)$ are derived:

Card 2 /8

Reliability Criteria of Automatic Relay
Arrangements With Radioactive Emitters

77830
SOV/103-21-2-10/14

$$P(x) = \frac{0.5}{\sqrt{\nu}} \Phi_1\left(\frac{x}{\sqrt{\nu}}\right) - \frac{0.0278}{\sqrt{\nu}} \Phi_4\left(\frac{x}{\sqrt{\nu}}\right) + \frac{0.00520}{\sqrt{\nu}} \Phi_8\left(\frac{x}{\sqrt{\nu}}\right) - \frac{0.00617}{\sqrt{\nu}} \Phi_{12}\left(\frac{x}{\sqrt{\nu}}\right) - \frac{0.000834}{\sqrt{\nu}} \Phi_6\left(\frac{x}{\sqrt{\nu}}\right) - \frac{9.87 \cdot 10^{-4}}{\sqrt{\nu}} \Phi_{10}\left(\frac{x}{\sqrt{\nu}}\right) - \frac{3.58 \cdot 10^{-4}}{\sqrt{\nu}} \Phi_{14}\left(\frac{x}{\sqrt{\nu}}\right) + \dots \quad (9)$$

$$P(x) = 0.5 - \Phi(z) - \frac{0.0278}{\sqrt{\nu}} \Phi_3\left(\frac{z}{\sqrt{\nu}}\right) + \frac{0.00522}{\sqrt{\nu}} \Phi_7\left(\frac{z}{\sqrt{\nu}}\right) + \frac{0.000773}{\sqrt{\nu}} \Phi_9\left(\frac{z}{\sqrt{\nu}}\right) - \frac{0.000832}{\sqrt{\nu}} \Phi_5\left(\frac{z}{\sqrt{\nu}}\right) - \frac{1.15 \cdot 10^{-4}}{\sqrt{\nu}} \Phi_{11}\left(\frac{z}{\sqrt{\nu}}\right) - \frac{4.20 \cdot 10^{-4}}{\sqrt{\nu}} \Phi_{13}\left(\frac{z}{\sqrt{\nu}}\right) + \dots \quad (10)$$

$$\Phi(z) = \frac{1}{\sqrt{2\pi}} \int_0^z e^{-\frac{v^2}{2}} dv \quad (11)$$

Here Eq. 11 is the fixed Laplace function, $\Phi_n\left(\frac{z}{\sqrt{\nu}}\right)$ are the derivatives of the integral of probability, and z is the quotient of standard deviation. The second expansion in a series for smaller ν and greater z is similar to the method worked out by Maslov and

Card 3/3

Reliability Criteria of Automatic Relay
Arrangements With Radioactive Emitters

77830
SOV/103-21-2-10/14

Povzner in the study, "On Infinitesimal Operators of One Class of Markov Processes." Theory of Probability and Its Application. (Ob infinitezimalnykh operatorakh odnogo klassa markovskikh protsessov. Teoriya veroyatnostey i eye primeneniya), Vol 3, Nr 1 (1958). When the function of distribution is found by one of the above methods, the average time of the stay of the relay in a given state and the average number of "false" operations at a unit time may be determined easily. For a noninertial relay these problems are reduced to determining the number of intersections of the actual values of potential with the potential v_n at which a change in the relay state takes place. The downward ($s \downarrow$) and upward intersections ($s \uparrow$), respectively, correspond to states 1 $|\bar{v}| > |v_n|$ and 2 $|\bar{v}| < |v_n|$. The following equations for $s \downarrow$ and $s \uparrow$ are derived:

Card 4 / 8

Reliability Criteria of Automatic Relay
Arrangements With Radioactive Emitters

77830
SOV/103-21-2-10/14

$$S^t = n_{op}(x)$$

(26)

where n_{op} is the threshold operation of the relay and
 $\sigma^t = n_{op}(x)$.

The average duration of overshooting for state 1 is
given in the form:

$$T^t = \frac{F(x)}{n_{op}(x)}, \quad (31)$$

and for state 2 in the form:

$$T^f = \frac{1 - F(x)}{n_{op}(x)}. \quad (32)$$

For condition

$$\frac{1}{S^t} > T^t \text{ or } \frac{1}{S^t} > T^f \quad (33)$$

the distribution of the number of "false" operations
is similar to the Poisson's distribution. Making use
of the above equations, the curves in Fig. 1 are obtained,
showing the probability that the potential is in
"false" state, as function of $n_{op}RC$.

Card 5/8

Reliability Criteria of Automatic Relay
Arrangements With Radioactive Emitters

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SOV/103-21-2-10/14

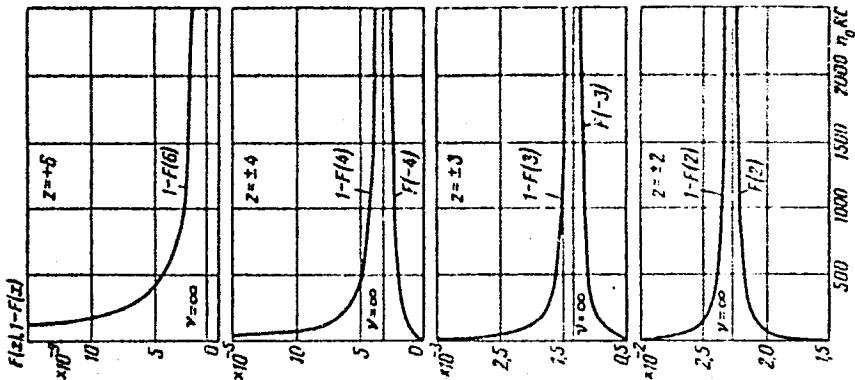


Fig. 1. Values of probability of potential being in "false" state.

The number of "false" intersections of the potential at a unit time as function of n_o , for various values of z and RC is shown in Fig. 2 (where n_o is threshold operation of the relay).

Card 6/8

Reliability characteristics of potential
Arrangements with additional devices

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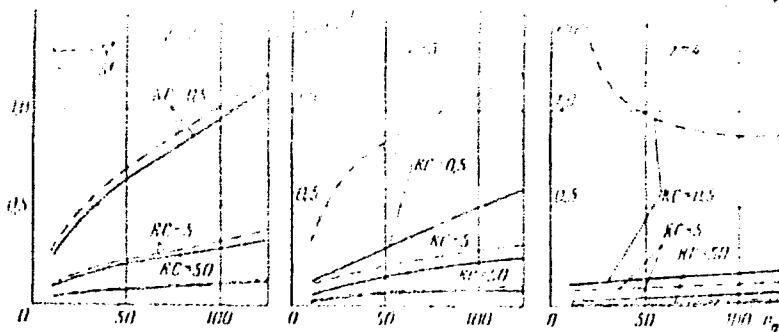


Fig. 2. Values of the average number of "false" intersections of potential in a unit time.

The average value of time when potential is in "false" state conditions for various z , n_0 , and RC is shown in Fig. 3. On the basis of results obtained, the relative time when the contacts of relay are in the "false" state and the number of "false" contact switchings may be determined for an actual relay of known characteristics. The assistance of L. K. Tatochenko

Card 7/8

Reliability Criteria of Automatic Relay
Arrangements With Radioactive Emitters

77850
SOV/103-21-2-10/14

is acknowledged. There are 3 figures and 6 Soviet
references.

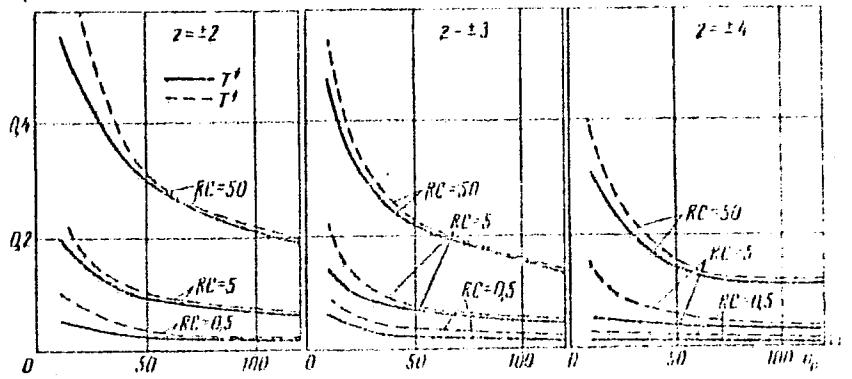


Fig. 3. Average values of "false" intersection.

SUBMITTED: June 17, 1959

Card 8/3

L 63001-65 EWT(m)/EPF(c)/EWP(j) JAJ/RM
ACCESSION NR: AP5016633 UR/0138/65/000/006/0001/0007
(678.752.2-134.622.063+678.4.063+66.062.27):
678.044/016:678.02:66.095.

A. I. VASIL'YEV, A. N. KUCHAKOV, AND I. A. KARAEV

On the copolymerization of vulcanized rubber with styrene

SOURCE: Kaučuk i gumenia, Nov. 5, 1961, no.

TOPIC TAGS: rubber, vulcanizate, vulcanized ~~rubber~~, copolymerization, copolymerization rate, carbon black, styrene, polymerization catalyst

ABSTRACT: The paper is an extension of the work of A. I. Vasili'yev, I. A.

Card 1/2

I 63003-65
ACCESSION NR: AP5016633

per isometric amount of material; i.e., for same specific surface area. Thiazoles inhibit the polymerization rate by a chain termination process, and rubraks, when present in quantities of less than 5-10%, has no effect on the rate of polymerization. (rig. art. has: 3 tables and 4 graphs.

ASSOCIATION: Moskovskiy institut sionkoy khimicheskoy tekhnologii im. M. V. Lomonosova (Moscow Institute of Fine Chemical Technology) // Nauchno-issledovatel'skiy institut kauchuka i plastmass (Bulgariya) (Scientific Research Institute for Rubber and Plastics (Bulgaria))

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NO REF Sov: 001

OTHER: 005

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Card 2/2

ACCESSION I.R. AP6008127

Page/Page/Pagen
S/0138/65/000/003/009/0011

AUTHOR: Vassilieff, A. E.

Editor:

TYPE: Technical Report

TOPIC TAGS: copolymerization, rubber, vulcanized rubber, polyethylene, styrene, styrene polymerization

ABSTRACT: The effect of various rubber materials on the polymerization of styrene in the presence of polymers was investigated. The polymers which were used were pure natural and synthetic rubbers, vulcanized rubbers which had first been treated with acetone to remove inhibiting admixtures, and saturated polyethylenes. The depth of the polymerization of the benzene and the viscosity of the polymer were determined using a previously described method. A technique of Upsokrovnikov was used to find the depth of polymerization.

Card 1/2

L 48605-6

ACCESSION NR: AP5008127

were studied the elastomers retard the polymerization of styrene. The retarding effect of non-extracted elastomers is more pronounced than with extracted elastomers. (fig. att. has. 1 chart, 3 figures.)

ASSOCIATION: Moskovskiy institut tonkoy khimicheskoy tekhnologii imeni M. V. Comodisov. (Moscow Institute of Fine Chemistry; Nauchno-Issledovatel'skiy i Prakticheskiy Institut po Prochnosti i Polimeram i Plastinam)

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Card 2/2

VASILEV, A. I., TUTORSKIY, I. A.; DOGADKIN, B. A.

Properties and structure of the products of vulcanizate reaction
with styrene. Kauch. i rez. 24 no. 10:23-26 '65. (MIRA 18:10)

1. Moskovskiy institut tonkoy khimicheskoy tekhnologii imeni M. V.
Lomonosova i Nauchno-issledovatel'skiy institut kauchuka i plastmass,
Bulgariya.